GLOBAL INTERDEPENDENCE IN AGRICULTURE

A User's Guide for Effective Communication









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INTRODUCTION

Interdependence has always been a reality of the global environment. People around the world share the same air, are touched by the same oceans, and are affected by the same weather patterns. In today's high tech world, the connections between countries bind us together in innumerable, intricate ways. From concerns about global warming and the spread of food-borne illnesses to water safety and biodiversity, the issues of today do not stop at our borders.

Many in the agricultural community recognize the critical importance of engaging colleagues and clientele in a public debate about our role in the world. In our increasingly interconnected world, Americans must understand what is happening beyond our borders, and make their voices heard in U.S. policy and programs. We believe that as Americans better understand global systems and the U.S. role in solving world hunger and poverty, they will actively support international agricultural development and cooperation efforts. Our ultimate goal is to build an informed, influential constituency, committed to ending world hunger and poverty, and to preserving our global environment for future generations.

USDA and its university partners can provide leadership in the international arena, utilizing the expertise of the system to infuse a global focus into teaching, research, and extension programs. The result will be faculty, staff, students, and a public better prepared for effective engagement in this interconnected world – better able to be responsible global citizens.

Some of us have been talking and teaching about global interdependence for years, sometimes feeling like we're talking to a brick wall. This guide explores some new, hopefully more effective, ways of talking about global interdependence – in ways designed to move people from understanding to action. We examine commonly held perceptions and "frames" that shape peoples' thinking, and make recommendations for presentations and written materials. The guide is intended to help us better understand what people believe about international agriculture and development so that we are all better equipped to discuss international work with colleagues, clientele, and the public.

This guide is a "work in progress," an ongoing learning experience as we cooperate in identifying the best ways to talk to agricultural and rural audiences about global issues. We greatly value your ideas, experiences, and comments in this process. Please send your feedback to:

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BACKGROUND

This guide summarizes some of the findings of the **Global Interdependence Initiative** (**GII**) of the Aspen Institute, and seeks to adapt key elements to the needs and interests of USDA and its university partners.

The GII program, launched in 1999, is a ten-year effort of the Aspen Institute designed to engage the American public more effectively on global issues. It is intended to better inform and more effectively motivate public support for forms of international engagement that are appropriate in an interdependent world. A working group of twenty-four senior managers from business, labor and non-governmental organizations collaborated on the recently completed first phase of the project. Further background information is available at www.aspeninstitute.org.

The GII program was developed in response to evidence of a significant gap between the public's values concerning America's global engagement and the actions and decisions of policymakers. Polls consistently show that the public supports an active role for the U.S. in world affairs, a strong United Nations, and the sharing of responsibility with other nations. These views, however, are held more passively than actively, and seem to have little influence on policymakers or on their perception of public opinion. This leaves the public with the feeling that these issues are beyond their sphere of influence, with only sporadic opportunities for involvement, usually in response to humanitarian appeals and military crises.

The Aspen Institute commissioned extensive communications research under the direction of the **FrameWorks Institute** and the Benton Foundation. Based on the results of this research, FrameWorks developed a comprehensive toolkit for communications professionals, entitled "Talking Global Interdependence." The toolkit provides detailed information about research findings and the approach to communications that FrameWorks calls "**strategic frame analysis.**" This guide attempts to summarize and highlight some of the key information from the toolkit, and apply those findings to agriculture issues.









A NEW PARTNERSHIP

In early 2002, the International Programs office of the Cooperative State Research Education and Extension Service (CSREES/IP) and the Aspen Institute began discussing the implications of the GII research for university teaching, research, and extension programs. A small advisory committee of professionals at seven land-grant universities was formed. Committee members reviewed GII materials and commented on appropriate adaptations. These individuals, all of whom are deeply committed to the importance of global engagement, continue to provide guidance to this collaborative project. A list of committee members is included at of this document. the end

RESEARCH FINDINGS

The FrameWorks Institute conducted extensive research for the GII project on public, policymaker, and media opinions of global issues, and how that information is given and received. FrameWorks also reviewed recent studies and opinion polls conducted by other researchers. Complete documentation can be found on the FrameWorks website, www.frameworksinstitute.org. The research results can be summarized as follows:

The American Public:

- 1. Is not isolationist. The public consistently supports an active role for the U.S. in world affairs. This support predates the terrorist attacks of September 11, 2001 and continues in a very consistent form.
- 2. Supports international engagement based on core values and beliefs, rather than specific knowledge.
- 3. Does not suffer from "compassion fatigue."
- 4. Gets most of its information about global affairs from popular news media.
- 5. Thinks of world affairs in terms of interpersonal and community relations; and believes everyone should be doing their "fair share."
- 6. Has a deeply held misperception that the U.S. is "doing it all" or contributing more than its fair share.
- 7. Sees the world (portrayed through the media) as chaotic, and events as unconnected.
- 8. Has difficulty assigning responsibility for, and understanding the causality of, global events.
- 9. Harbors strong reservations about the effectiveness of foreign assistance.
- 10. Lacks confidence in its views on global issues and often remains silent.
- 11. Believes that the U.S. should do (and usually does) the right thing, and that the world should abide by some basic moral norms that apply to all, including the U.S.
- 12. Assigns a high priority to global environmental concerns.
- 13. Understands that the global environment is a complex, interdependent system and is able to transfer that notion to other global issues, including hunger and poverty.

Policymakers:

- 1. View the public as uninformed, uninterested, and sometimes meddlesome.
- 2. See international issues in terms of balance of power, self-interest of countries, and instabilities in the system.
- 3. Look to the media as a reflection of public opinion on world affairs.
- 4. Are largely unaware of the public's actual views about global issues.

The Media:

- 1. Portrays the world as chaotic, episodic, and without clear lines of accountability.
- 2. Reinforces a "global mayhem" view of the world.
- 3. Portrays the U.S. as the main "fixer" of global problems. Gives little attention to the roles and contributions of other countries.
- 4. Looks to policy elite for sound bites and expert opinion.

FRAMING THE ISSUES

Based on these research findings, FrameWorks examined how Americans think about international issues, how they categorize and organize their thoughts. FrameWorks developed a communications approach based on analyzing and understanding widely held public assumptions and worldviews. They call this approach "strategic frame analysis."

"Frames" refer to the construct of communication – language, visuals, and messengers – and the way they literally or metaphorically signal the listener or observer to interpret and classify, or "frame," new information. Essentially, frames are the mental shortcuts that we use to make sense of the world.

Frames are both powerful and enduring. They provide a shared way of thinking about issues in particular cultural contexts. Frames help us sort out what is important for us to pay attention to, as well as what can be ignored. Frames also allow us to "fill in" missing or misunderstood information.

Public engagement in global issues cannot be achieved simply by presenting the facts. FrameWorks' research indicates, "if the facts don't fit the frame, it is the facts that are rejected, not the frame. The impact of a given communication is often more directly related to the frame that is called forth, than to the issues or actual facts conveyed." The task, then, is to communicate in new ways and call forth frames into which the facts will fit. Set the frame first, then use the facts to support and give evidence for the frame.

Elements of a Frame:

Metaphors
Messengers
Visuals
Messages
Stories
Numbers

The key elements of a frame, as identified by FrameWorks, include metaphors, messengers, visuals, messages, stories, numbers, and context. Taken together these elements tell the listener or reader how to interpret new information and experiences. They also convey the problem, the solution, and who has responsibility for both. An in-depth discussion of each element can be found in the "Talking Global Interdependence Toolkit."

The GII research was conducted with a cross-section of the American public representing "average" Americans. As you read through this guide, keep in mind the characteristics of your specific audiences, and which frames and metaphors might be most effective with those audiences.



Summarized below are some common frames for international affairs. The manner in which the issues are communicated will call to mind particular frames. Once the frame is determined, audience ability to "see" outside the frame is limited. Often multiple frames can be in evidence at the same time. When this happens, one frame

will generally prevail. Dominance is usually determined by which frame has been reinforced most often by experience or through the media.

It is important to note that being aware of others' frames makes it easier to communicate *effectively* with them. It is not manipulating the information, but making the communication more comprehensible and contextual for others engaged in the dialogue.

Some frames are wholly or partly metaphorical in nature. In other words, the frame is defined by a metaphor. These frames highlight similarities between two different areas of our experience, such as applying what we know about our local neighborhood to our understanding of the relationships between countries in the world -- the "world as a community." Often these metaphors are so familiar that we think of them as literal – but they aren't.

Our goal is to communicate to the public in ways that evoke a spirit of engagement, cooperation, and mutual respect, and in ways that will motivate people to actively support international development and cooperation efforts.

Some of the frames described below, such as **global mayhem**, **ruthless competition**, and (perhaps surprisingly) **teachers**, and **neighbors**, work directly against this goal. Others are less clearly in opposition, but nevertheless do little to further our goal and are better used as a secondary focus.

Our aim is to evoke the frames that do help, primarily **global environment, moral norms**, and **mutual benefits**. Other frames such as **teamwork/partnership**, **group members**, and **mentoring for autonomy** are also supportive frames. It is important to be able to be able to recognize and understand these common frames in order to consciously choose and effectively use frames that support our goals.

Global Mayhem

Americans get most of their information about global issues from the news media. FrameWorks research revealed that the dominant frame in the public mind is one of "global mayhem." Reinforced daily by television news, the public views the world as a very chaotic place where terrible things happen and often the U.S. alone must intervene to "save the day." Reporting about international news is highly episodic, featuring a wide array of natural and man-made disasters. Popular news media rarely examine

causality or assign responsibility and, as a result, the public has no clear understanding of causality, responsibility, or possible solutions. When the media portrays a solution, it often involves the U.S. acting alone to remedy the situation. This frame leaves most people feeling disengaged from global issues, with little confidence in their ability to understand or influence these issues. The media focus on the U.S. role in alleviating world problems reinforces the false perception that the U.S. is doing more than its fair share. Since the terrorist attacks of September 11, 2001, the public has undoubtedly become more aware of the rest of the world, but news coverage about war and terrorism does little to dispel this dominant frame of "global mayhem."



Global Environment

FrameWorks tested two issues, infectious diseases and the global environment, as "primes" or warm-ups for talking about global issues (see "Bostrom" in Reference section). The global

environment prime was found to be most effective in increasing participants' sense of global interdependence. Because the American public is already very aware of the global nature of the environment, it tends to put people in the mindset of a **global**, **interdependent system**.

FrameWorks suggests that using the global environment as a warm-up to other issues will help to increase positive attitudes about international cooperation and a willingness to become involved in world affairs. The environment transcends national boundaries, and so does agriculture in many ways. Since most agricultural and rural development issues are strongly tied to the environment, a global environment lead-in would be a natural choice for most presentations or papers. The environment, however, should be discussed in a positive, systems ("we're all connected") framework to avoid scaring people about environmental disasters and evoking a frame of fear and insecurity.

Moral Norms

Americans like to "do the right thing" and they want to believe that their country is "doing the right thing" in the global arena. Americans like the idea of making the world a better place, particularly for future generations. An appeal to these deeply held values and beliefs can be an effective motivator.

The "world as a community" metaphor can be expanded to include moral norms and behaviors to which countries should be held accountable (Lakoff). When tested as an introduction to a public opinion survey, the moral norms frame elevated the importance of every issue tested. However, respondents didn't necessarily make the connection to government responsibility and action. This emphasizes the importance of making these connections clear to the audience – assigning responsibility and suggesting possible actions.

Security/Terrorism

In the post September 11 world, it is tempting to argue that the U.S. must engage in international development as a means of combating potential terrorism. Bio-terrorism and threats to food security cannot be ignored. Poverty is often seen as the "breeding ground" for terrorism. Yet the terrorists of September 11 were not poor, and most poor people are simply



too busy trying to survive day to day to engage in political protest or terrorism. The best available research into motivations for international terrorism points to perceived injustice, rather than poverty, as the key. And, FrameWorks research suggests that appeals for international involvement based on threats to security promote crisis thinking rather than cooperation. It may also put people on the defensive and encourage isolationist thinking (Aubrun and Grady).

Nevertheless, security, including the security of food and environmental resources, is now a top priority of the nation. These issues cannot be ignored in any discussion of international engagement. Recent polls indicate that while Americans are concerned about security, they also recognize that a military response is not the full answer, and that there is a need for international cooperation to create a better, safer world for all (PIPA).

One approach to this frame is to highlight the advantages, even the necessity, of working in partnership with other countries to build a safer, more secure food supply for everyone. Collaboration with producers, scientists and governments of other countries can help ensure safer food imports to the U.S. and safeguard valuable environmental resources.

Self-Interest

In the past decade, much has been said about the benefits that accrue to the U.S. from development assistance and international cooperation, particularly in agriculture and natural resources. Research conducted for the GII project, however, cautions that Americans' assessment of global issues is more often rooted in more altruistic values, like responsibility to future generations and "doing the right thing," rather than narrow self-interest. Survey respondents overwhelmingly chose support for the world's poorest countries over aid to those countries important to U.S. security or needed as trading partners (Bostrom).

It is important to note, however, that this research did not focus on particular sub-groups, such as U.S. farmers, for whom international markets are particularly important. In addition, many of the self-interest arguments, including the potential for future trade, can be applied in general terms to most, including the world's poorest, countries. To ignore the benefits that accrue to the U.S. from international cooperation in agriculture would be foolhardy. On the other hand, to stress only the self-interest argument misses the opportunity to appeal to the very deeply held American value of "doing the right thing."

Two possible approaches to avoiding the pitfalls of the self-interest frame are as follows:

- 1. Present the audience with a list of benefits that accrue to the U.S. in the course of "doing the right thing." In other words, the benefits are not "why" Americans should get involved, but they are a great by-product!
- 2. Demonstrate the **mutual benefits** of international cooperation (discussed below). Show how the U.S. *and* developing countries benefit from international cooperation.

Teamwork/Partnership

This frame taps into workplace models that are familiar to all Americans. The term "partner" implies a working relationship, one in which both parties are more or less equal and share similar goals. Partnerships are also generally thought of as long-term, which may help to counter the episodic nature of most international news (Aubrun and Grady). And surveys since 9/11/01 consistently find that strong majorities of respondents favor the U.S. dealing with terrorism in a multilateral fashion (PIPA). In other words, the public wants the U.S. to be a "team player."

FrameWorks research, however, suggests that this is a complicated frame. While this frame increased support for an active U.S. role in the world, respondents also tended to fall back on the perception that the U.S. is "doing it all." In using teamwork and cooperation metaphors it is important to stress the important roles of other countries and peoples.

Another consideration in using this approach is that according to FrameWorks' research using the partnership frame increased support for giving assistance to current and potential trade partners (Bostrom). If this support is given at the expense of more needy countries it could work against our long-term goals.

Mutual Benefits

Related to the teamwork/partnership frame is a frame we'll call "mutual benefits" – people working together for the benefit of all. Since this frame was not tested by FrameWorks, no conclusions can be drawn about its effectiveness. However, we hope that the experiences of people using this guide will help to inform the use of this increasingly common frame.

In agriculture it is easy to make the case for the "win-win" nature of international cooperation and development. Many benefits accrue to both the developing country and the U.S. Some of the mutual benefits include: expanding trade and business opportunities; ensuring safe, high quality food; sharing scientific knowledge and information; protecting and preserving the natural environment; and building human capital. For a more detailed discussion and case study examples of the mutual benefits of international cooperation in agriculture refer to "Food: The Whole World's Business" (Hertford and Schram).

Note that "mutual benefits" means that everyone benefits, but perhaps not in exactly the same way. Therefore, it is probably best to stress the importance of the benefits to all stakeholders and to avoid lopsided arguments that could be interpreted as self-serving.

Group Members



Related to teamwork and partnerships, being members of the same group, farmers for instance, may promote understanding between cultures and peoples. Knowing that certain subsets of people in other countries share many of the same challenges and issues can create a base for future engagement and

cooperation. This particular frame, while promising, has not yet been tested in agricultural and rural sectors of the U.S.

Ruthless Competition

In this frame, countries are seen as individuals, acting in their own selfish self-interest. International relations are like ruthlessly competitive interpersonal relationships (Aubrun and Grady). While this frame is largely absent from broadcast news, it is easy to imagine that this might be a commonly held frame in rural America, due to increasing competition in the global marketplace. Needless to say, this mindset is not conducive to promoting international cooperation. As with other undesirable frames, one way to counter it is to promote the desirable frames in your language and visuals.

Teachers

Describing the U.S. as a "teacher" and other countries as "students" necessarily sets up an adult/child relationship. Although teaching is not "as" positively valued activity, the people in the frame are not seen as equally mature and competent adults. Therefore, this metaphor does not further the goal of promoting respect and equilateral cooperation.

Mentoring for Autonomy

A particular kind of mentoring, "mentoring for autonomy," allows people to think in "adult to adult" terms. It also reinforces the strong American values of independence and efficacy (Aubrun and Grady). American farmers and scientists can be characterized as mentoring farmers in other countries, helping them to become more productive and self-reliant. Farmer-to-farmer programs and similar exchanges fit easily into this frame.

Two cautions, however: first, this frame can easily be confused with "teacher," particularly if the other country is characterized as "poor" or "underdeveloped." Second, even in the best of circumstances, mentoring involves a somewhat hierarchical relationship. Thus, it may sound good to the potential mentor (the Americans), but can be seen as patronizing by the potential mentoree.

Neighbors

People often think of countries as "people" in the world community. Using this metaphorical mindset, countries can be defined as "neighbors." Mexico, for example, is our "neighbor" to the south and Canada is our northern "neighbor." While the idea of "good neighbors" initially appears to be an attractive





metaphor, it does not motivate Americans to work together on a long-term basis. Americans tend to define good neighbors as people who mind their own business, keep their own house in order, and come to the aid of others in times of emergency (Aubrun and Grady). To mobilize support in a crisis situation, the neighbor metaphor could be effective, but it probably will not elicit support for long-term development.

Democracy

Promoting democracy around the world is often stated as a goal of U.S. foreign policy and, on the surface, sounds like an argument that would appeal to most Americans. However, according to a recent public opinion survey, promoting democracy ranked dead last among all the arguments for the U.S. to be active in world affairs (Women's Lens). This may be related to the public's reluctance to get involved in their "neighbor's" internal affairs. While it is not a negative frame, promoting democracy does not appear to be a very effective motivator for engagement in global affairs.

METAPHORS

Metaphors often play a key part in frames. In fact, some frames are essentially defined by metaphors (countries as

"neighbors" in the world "community," for example).

Metaphors are more than simply an interesting way of describing something – they are packed with meaning and connections. Describing a car as a "lemon" or a "gem" imparts two very different meanings. Metaphors create pictures in our minds and link otherwise disparate thoughts and ideas. They set up patterns of reasoning that aren't always consciously noticed. Metaphors can be conveyed by either words or pictures.

Cognitive linguist Pamela Morgan has identified and described three "families" of metaphors: competition, cooperation, and interconnection (or systems). This provides a useful way of grouping metaphors and their effects on the audience.

Competition: Competition metaphors are characterized as having two

S

or more competitors reaching for the same goal, but only one can "win."

Common competition metaphors include races, combat, winners and losers. FrameWorks research found that when topics were introduced with competition metaphors such as these, the audience tended to fall into a self-interest frame of reference. This reinforced the belief that the U.S. is already doing more than its share and others should be doing more.

Cooperation: Cooperation metaphors involve two or more entities that choose to work together to attain the desired goal. When discussions were opened with cooperation metaphors, people were more open to potential cooperation and collaboration. Morgan has identified metaphors based on team players, partnerships, working groups, family and community as among the most common cooperation metaphors.

Interconnection: Interconnection metaphors evoke a "systems" frame.

All parts are equally important and all are necessary for the functioning of the whole. As described by Morgan, this metaphor family includes people, animals, plants, the environment, machines, buildings, fabrics, webs, and networks. Although FrameWorks did not test all the metaphors, when people were primed with interconnection metaphors about the global environment, they were more likely to see the importance of investing in other countries' educational and social institutions.

While both cooperation and interconnection metaphors are preferable to competition metaphors, it is important to note that only interconnection metaphors are based on the premise that all parts of the whole are equally important and necessary. This kind of systems thinking is more likely to promote a sense of global interdependence, equality, basic human rights, and respect for all peoples.

MESSENGERS

In most cases, the users of this guide, university professors, researchers, and extension professionals will probably be the messengers, but bringing in other resource people can often enhance and strengthen your presentation. Quotes from knowledgeable sources may also strengthen written materials. In any case, all messengers should reinforce the desired frame.

Some potential messengers:

- 1. University faculty, professors, researchers, county extension agents who have an understanding of global interdependence.
- 2. Youth leaders
- 3. Agribusiness leaders
- 4. Community leaders
- 5. Foreign students and visiting faculty
- **6.** Returned Peace Corps Volunteers and other international volunteers

Don't overlook knowledgeable resource people who may not have international experience. Non-internationally focused messengers can sometimes be seen as more genuine and less motivated by self-interest.

What to look for in resource people:

- ♦ Credible (not seen as being motivated by competitive or particular self-interest)
- ♦ Knowledgeable
- ♦ Provide first-hand accounts
- ♦ Reinforce your messages of global interdependence

VISUALS



"A picture is worth a thousand words" – and it is important to make sure that all visuals reinforce the desired frames and metaphors. It is particularly important that your slides or photos do not reinforce the

global mayhem frame. As FrameWorks suggests, choose visuals that illustrate the problem and people working together to solve the problem. If you are making a presentation about your overseas experiences you will, of course, be in some of the photos, but you should not be the center of attention. This only reinforces the idea that Americans must "solve all the world's problems." Emphasizing similarities, rather than "foreignness," in your visuals will help your audience relate to people in another culture.

NUMBERS

Numbers can be an important and effective means of conveying information to an audience, but only if the audience is able to relate the numbers to something in their own lives. Consider the following equivalent statements:

- ♦ "60% of the population of Country X has an annual per capita income of \$400 or less."
- "The average person in Country X lives on less each day than most of us spend on a cup of coffee."

The second statement is more meaningful to most Americans, more likely to be understood and remembered. FrameWorks suggests that as a rule of thumb, never give numbers without including some kind of meaningful comparison that supports your point. Do not assume that everyone sees the numbers with the same meaning that you do; numbers can be interpreted by means of more than one frame, and not all of the interpretations will be helpful to your cause.

Of course, what is "meaningful" is specific to the audience and the goals of the presentation. Highly sophisticated audiences will expect more numbers and statistics; they will have the technical background to interpret and assign meaning to them. When in doubt, however, err on the side of simple, straightforward everyday comparisons.

TELLING STORIES

Stories, properly framed, are powerful motivators. As you tell stories from your own experiences overseas keep in mind the following points suggested by FrameWorks.

Effective global interdependence in agriculture stories should highlight:

- solutions
- effectiveness
- teamwork
- partnership
- values
- communities
- opportunities for action



The most effective stories offer meaningful and specific ways for Americans to act in support of these values as consumers, volunteers, and advocates.

TALKING AGRICULTURE Exploring Frames

So, what does this all mean for agriculture and rural development? The following frames and metaphors are based on the FrameWorks research for the GII project, but have not yet been tested through research. We hope that you will help us test these frames in written materials and presentations about international cooperation in agriculture. Your comments and suggestions will enable us to expand and further define this section.

Possible Frames for International Agriculture

Moral norms:

- Solving world hunger is the "right thing to do"
- Making the world a better place for future generations

Mutual benefits:

• Global cooperation in agriculture is a "win-win" situation

Environment:

- Agriculture and the global environment are linked
- Preserving the environment

Mentoring for autonomy:

- U.S. farmers as mentors to farmers in other countries
- Utilizing U.S. expertise to solve cross-border issues

Members of the same group:

• Farmers, agriculturists, rural, mountain, ethnic

Teamwork/partnership:

- Working together to ensure global food security
- Hunger is a global challenge; we're all in it together

Some Suggested Metaphors for Agriculture:

- ◆ Agriculture is a global system (interconnection metaphor)
- ♦ Barn-raising (partnership/teamwork)
- Pulling the load together, burden-sharing (partnership/teamwork)
- ♦ Calluses on hands (same workgroup)
- Planting seeds, growing, cultivating, fertilizing, harvesting (interconnection, living systems metaphors)



We value your ideas, experiences, and comments in this process. Please send your feedback to:
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ANSWERING THE TOUGH QUESTION:

"WHY SHOULD THE U.S. SUPPORT FARMERS IN OTHER COUNTRIES?"

Some possible approaches:

- ◆ Substitute the **global environment** frame for the **ruthless competition** frame. Emphasize the interconnected nature of global agriculture. However, remember not to restate the undesired frame in order to deny it; this will only serve to reinforce it.
- ◆ Use the **moral norms** frame. "Helping less fortunate farmers and their families is the right thing to do." Making the world a better place, particularly for future generations, is a very powerful frame.
- Emphasize **mutual benefits**, the "win-win" nature of agricultural development assistance. International cooperation brings many benefits to *both* the developing country and the U.S. (refer to Hertford and Schram). Concentrate on broad, mutual benefits to avoid falling into the self-interest trap.
- ♦ Stress the links between farmers or rural people worldwide, **members of the same group** frame. Farmers around the globe face similar problems, and have similar hopes and aspirations for their families. Again, pointing out similarities, rather than emphasizing "foreignness," can go a long way towards building bonds of understanding across cultures. However, while it is important to note that American farmers and farmers in developing countries face similar challenges, there are often big differences in the scale of the problems, the consequences, and the alternatives available to individual farmers.



MESSAGE CHECKLIST

The following recommendations, presented in checklist format, are designed to help you prepare presentations and written materials about global interdependence in agriculture. All of the suggestions may not be appropriate in every situation. Refer back to the discussions of frames and metaphors as needed. And, as always, your feedback on this tool will be appreciated.

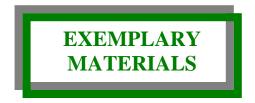
- ♦ Begin with words or visuals that highlight the global environment and get people thinking about interconnected systems. Segue into agriculture or your specific topic area.
- ♦ Appeal to moral values and the desire to make the world a better place. This powerful frame can set the stage for the discussion of specific issues.
- ◆ Try out the "mutual benefits" frame. Although this frame was not tested by FrameWorks, we think it has potential for eliciting strong support.
- ◆ Talk about "global" issues, rather than "foreign" issues, emphasizing interconnectedness rather than differences. However, use caution with the term "globalization." This is a very charged term and has many negative connotations.
- Emphasize cultural, social, and economic similarities that your audience can relate to; avoid dwelling on the exotic.
- ♦ Carefully define the situation:
 - Clearly state the cause(s) of the problem.
 - Identify a solution, or opportunities to improve the situation.
 - Identify host-country problem-solvers, people willing to work hard to make a difference.
 - Clarify who is responsible for fixing the problem. (people/government/organization)
- In describing your personal experiences overseas, focus on your role as a partner or mentor. Focusing on Americans as the "experts" or "heroes" reinforces the notion that the U.S. "does it all."
- ♦ Highlight the good work of host country communities and work groups, rather than focusing on one individual. Demonstrate the power of teamwork and cooperation.

- ◆ Pay attention to your metaphors use cooperation and interconnection metaphors, rather than competitive metaphors.
- Stress Efficacy. Americans like to get the job done.
- ♦ De-emphasize:
 - Narrowly defined "self-interest" arguments
 - Terrorism and security issues
 - Chaotic situations that reinforce the "global mayhem" frame
 - Ineffective frames and metaphors, such as neighbors and teachers
- Make sure your title, meeting announcements and visuals reinforce positive frames.
- Explain numbers in terms that the audience will understand and can compare to situations in their everyday lives.
- ♦ When you want to counter a perception, present your case without restating the false perception. Restating a false perception often reinforces it.
- ◆ Tell people how they can get involved, including how they can get more information about your project, other university efforts, or global issues in general.



We value your ideas, experiences, and comments in this process.

Please send your feedback to:
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A. FRAMING EXERCISE

Sharing your Overseas Experience



This exercise is designed to illustrate the framing principles suggested in this guide. It begins with a draft of an article describing the international work of a fictitious university professor. The article is then analyzed in terms of framing research and a second draft is presented at the end. As with any new technique, the more you use this methodology, the more proficient you will become at learning to identify frames and incorporating them effectively into your communications.

Suggested Method of Using the Framing Exercise

- 1. Read through the first draft (a) and see how many frames (positive and negative) you can identify.
- 2. Compare your notes to the first draft with comments (b) and the discussion section (c). Refer to the discussion of frames in the User's Guide as needed.
- 3. Think about how you could improve this article.
- 4. Read the second draft (d).
- 5. Jot down ideas for additional changes to the article. There is always room for improvement!
- 6. How can you apply this to *your* communications about international agriculture?

FIRST DRAFT (a)

HOMETOWN PROFESSOR CHAMPIONS THIRD WORLD HUNGER

Hometown resident Cyrus Adams knows how to put an end to starvation in the African nation of Cameroon. He said Cameroon farmers produce more than enough food – the problem is the way their food is distributed.

Adams, Assistant Professor at the University's Institute of Food and Agricultural Sciences in Hometown, has taken the lead on a United States Department of Agriculture USAID-funded project, managed by USDA's Cooperative State Research, Education and Extension Service, or CSREES. The USDA/CSREES project is the federal agency's latest initiative to help developing nations solve issues such as starvation, food safety, and hygiene. Adams and colleague Nancy Gayle are the first professors to work with the CSREES project in Cameroon. Adams, who holds a Ph.D. in agribusiness management, was selected by USDA officials for his wide breadth of expertise to serve as a consultant to the Cameroon Minister of Agriculture.

"Dr. Adams has an extensive background in crop and livestock production, and marketing and management," says Jane Smith, USDA/CSREES International Programs Specialist. "He has created and supported market development programs throughout the country for specialty crops, fruits, vegetables, and livestock, and, has worked on developing alternative market channels for a value-added products."

Adams returned from Cameroon following a two-week fact-finding mission. During that first trip to Cameroon, Adams and Gayle researched the way the African nation's food was both produced and marketed.

"We found that nearly all of the country's residents purchase their food at farmers' markets and roadside stands," said Adams. "Fruits and vegetables are positioned in the same areas where chickens and cows are penned and slaughtered."

Together the two professors identified three critical areas for which Cameroon's food products need immediate attention: food safety, post harvest standards, and food grading standards. "In Cameroon, there are no food safety standards," said Adams. "Food is not clean when it is sold or purchased, refrigeration is a luxury and electric outages are very frequent."

From those three areas, Adams has developed a program of workshops he will use to continue his work with the USDA/CSREES and Cameroon officials. The scheduled workshops include training the Minister of Agriculture's staff to use computers, teaching Cameroon mothers about good nutrition and teaching farmers how to store and transport the food they produce to prevent spoilage.

"Adams will continue his work with the project and return to Cameroon to help improve the lives of people there many times," said Smith. Adams said he was motivated to serve in Cameroon because he knows it is a place in the world where help is most needed and will be appreciated.

"Adams is not working in Cameroon to make money. He is using his knowledge to make life better for people he does not know and I have no doubt his work will be highly successful," said Eric Michaels, Interim Director at the research center where Adams is a professor.

"Today 10 percent of children in developing nations die before the age of five," wrote Sameh Naguib in a recent news article published in a Cairo, Egypt newspaper. "The world has an unprecedented capacity to produce – to feed and clothe everyone – but it is dominated by a system that produces waste and hunger instead."



FIRST DRAFT WITH COMMENTS (b)

HOMETOWN PROFESSOR CHAMPIONS THIRD WORLD HUNGER

Champion = U.S. hero doing it alone

Professor = teacher frame

Hometown resident Cyrus Adams knows how to put an end to starvation in the African nation of Cameroon. He said Cameroon farmers produce more than enough food – the problem is the way their food is distributed.

starvation = global mayhem

Using U.S. expertise to solve world problems

Adams, Assistant Professor at the University's Institute of Food and Agricultural Sciences in Hometown, has taken the lead on a United States Department of Agriculture USAID-funded project, managed by USDA's Cooperative State Research, Education and Extension Service, or CSREES. The USDA/CSREES project is the federal agency's latest initiative to help developing nations solve issues such as starvation, food safety, and hygiene. Adams and colleague Nancy Gayle are the first professors to work with the CSREES project in Cameroon. Adams, who holds a Ph.D. in agribusiness management, was selected by USDA officials for his wide breadth of expertise to serve as a consultant to the Cameroon Minister of Agriculture.

Credentials of messenger established

"Dr. Adams has an extensive background in crop and livestock production, and marketing and management," says Jane Smith, USDA/CSREES International Programs Specialist. "He has created and supported market development programs throughout the country for specialty crops, fruits, vegetables, and livestock, and, has worked on developing alternative market channels for a value-added products."

Adams returned from Cameroon following a two-week factfinding mission. During that first trip to Cameroon, Adams and Gayle researched the way the African nation's food was both produced and marketed. Problem Identification "We found that nearly all of the country's residents purchase their food at farmers' markets and roadside stands," said Adams. "Fruits and vegetables are positioned in the same areas where chickens and cows are penned and slaughtered."

No host country experts involved = U.S. "doing it all" Together the two professors identified three critical areas for which Cameroon's food products need immediate attention: food safety, post harvest standards, and food grading standards. "In Cameroon, there are no food safety standards," said Adams. "Food is not clean when it is sold or purchased, refrigeration is a luxury and electric outages are very frequent."

Solution Identification From those three areas, Adams has developed a program of workshops he will use to continue his work with the USDA/CSREES and Cameroon officials. The scheduled workshops include training the Minister of Agriculture's staff to use computers, teaching Cameroon mothers about good nutrition and teaching farmers how to store and transport the food they produce to prevent spoilage.

Moral Norms "doing the right thing"

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Moral Norms

"Adams is not working in Cameroon to make money. He is using his knowledge to make life better for people he does not know and I have no doubt his work will be highly successful," said Eric Michaels, Interim Director at the research center where Adams is a professor.

Introduction of global development and global food problem

Ends with hopelessness

"Today 10 percent of children in developing nations die before the age of five," wrote Sameh Naguib in a recent news article published in a Cairo, Egypt newspaper. "The world has an unprecedented capacity to produce – to feed and clothe everyone – but it is dominated by a system that produces waste and hunger instead."



DISCUSSION OF FIRST DRAFT (c)

Professor/Teacher:

Using the term "professor" in the title of the article immediately puts the reader in the teacher/student frame. This implies an unequal relationship, usually between parent and child. Titles are important to establish the credibility of the messenger, but refrain from using the title of "teacher" or "professor" more than necessary, and try not to highlight them.

In the workshop description (paragraph #7), the word "teaching" is used twice. This, again, reinforces the teacher frame.

Champion:

The "Champion" of Third World hunger is not only a confusing title, but introduces an American "hero." This reinforces the idea that Americans do more than their share to solve world problems. "Champion" may also be a problematic word in that it falls into the category of competition metaphors, implying that there is a competition to be won.

In addition, once a hero has been identified, the reader can assign responsibility for "saving the day" to the hero, rather than to governments, countries, or communities. If the hero has the situation under control, there is no motivation for further action. The problem is solved.

Starvation:

"Hunger" is probably a better choice of words than "starvation." Starvation calls forth the global mayhem frame. It is an acute problem that must be addressed immediately and requires an emergency response, not a long-term development program. For specific audiences "food security" may be a useful term, but to the general public "hunger" is more meaningful.

American Know-how:

Americans like to be told that they have special knowledge and abilities. This is conveyed in this article through Adams' background and overseas responsibilities. However, in touting American know-how, one has to be careful not to imply that people in developing countries are less intelligent. "Dr. Adams knows how to put an end to starvation," is a rather smug statement and leads the reader to think that maybe the people of Cameroon aren't very smart if they don't know how to put an end to hunger in their own country.

Problems and Solutions:

Efficacy is a powerful motivator for Americans. Americans like to "get things done." In order to use this frame one must clearly demonstrate both the problem <u>and</u> the solution.

The problem is identified (the way food is distributed) in the first paragraph, but how this was established is not discussed until later in the article. At that point it is confusing what exactly the problem is – it is no longer just a distribution problem. Now there seem to be food safety and handling problems too. The solution seems be a series of

workshops, but there is no follow-through to demonstrate the link between the workshops and improving the local food systems.

The last sentence of the article introduces another problem – a global food system that produces waste and hunger. There is no further discussion or solution offered for this problem.

Mutual Benefits:

No mutual benefits are identified. While the article talks about Adams' background and work in the U.S., there is no link between his job or community and his international experience. He does not describe any experiences overseas that will enhance his work in the U.S. Again, this reinforces the teacher frame – the instruction is only in one direction. This is unfortunate because mutual benefits is likely to be a powerful frame for motivating action, as well as garnering support from colleagues in the workplace.

Partnership/Cooperation:

This powerful frame is missing from the article. Although there is a partnership between various U.S. organizations, no partners from Cameroon are identified.

Moral Norms:

The introduction of the moral norms frame comes late in the article and is presented through an individual lens – "the selfless hero." The reader gets the impression that Adams is a decent person, but the article does not convey that the U.S. or the American people have any moral responsibility.

Numbers:

The statistic cited in the last paragraph (10% of children in developing nations die before the age of five) could be presented in a more meaningful way. Numbers can often be used to "restate" the problem.

Quotes from Experts:

The article assumes that the reader knows Sameh Naguib, and does not establish his credibility to address these issues.

Global Scope:

The global scope of development issues is presented in the last paragraph, but it is not connected to the rest of the article. The statement that "the world has an unprecedented capacity to produce – to feed and clothe everyone" lets the reader hope that there will be a solution. However, that hope is dashed by the next, and last, sentence, which leaves the reader feeling that the system is hopelessly broken. This not only introduces the "systems" concept on a negative note, but, unfortunately, dumps the reader, once again, into the global mayhem frame, in which no real, long-term solutions are possible.



HOMETOWN MAN IS PART OF THE SOLUTION TO HUNGER

Open with the environment Segue to agriculture Photo suggests partners if people are "side-byside" Satellite images of Earth that have become so commonplace today show us in no uncertain terms that our planet is small and interconnected. But a photo of Hometown native, Cyrus Adams, side-by-side with farmers on a hillside in the West African nation of Cameroon is an even more vivid reminder that we all depend on Mother Earth for the food we eat each day.

Establish credentials

Partnership

Efficacy-solutions

Adams, Assistant Professor at the University's Institute of Food and Agricultural Sciences in Hometown, is the lead scientist on the "Cameroon Agricultural Advancement" project. Adams and colleague Nancy Gayle, Senior Researcher in Food Sciences at the University of Somewhere, have been working closely with the Cameroon Ministry of Agriculture to find new solutions for the country's food production and distribution system.

Leadership Teamwork

Problem identification

Adams, who holds a Ph.D. in agribusiness management and has an extensive background in market development and post-harvest technology led a team of Cameroonian and American specialists in analyzing the country's agricultural system. The team identified three critical agricultural issues: food safety, post harvest standards, and food grading.

Solutions

"We decided to build a series of training programs for Extension specialists around those three issues," said Adams. The training programs focus on post-harvest technology, marketing, family nutrition, and computer training for Ministry of Agriculture staff.

Results

Although it's still early in the project, Adams can already see results. An Extension specialist who had gone through the training program helped farmers in the village of Ndao form a transportation cooperative to get their vegetables to market cheaper, faster, and with less spoilage. After only three months, the villagers have realized enough profit to lease a larger vehicle and expand their market area to a more distant town where they can command higher prices.

Job not finished Needs support

"Extension workers in other villages are reporting similar progress, but there is still much work to be done," cautions Adams. "Corn doesn't grow overnight, and neither does a profitable farm enterprise. This type of grassroots development project takes time, and a real commitment from everyone."

Global perspective Introduced

Numbers with meaning

The project, managed by the U.S. Department of Agriculture, Cooperative State Research, Education, and Extension Service, is a part of a renewed effort to solve issues such as hunger and food safety around the world. According to UNICEF, each day in the developing world 30,500 children die from preventable diseases, and half of those deaths are associated with malnutrition. "Imagine," says Adams, "that's equivalent to all the children in Rural County dying every day of the year!"

People helping themselves; not a handout The United Nations Food and Agricultural Organization reports that virtually every country in the world has the potential of finding solutions to its food and hunger problems by growing sufficient food on a sustainable basis. "What's more," says Adams, "there is plenty of food in the world right now, but due to a combination of economic, distribution, and marketing issues, there are still hundreds of millions of people who go to bed hungry every night. They aren't looking for a hand-out, they're looking for a "hand-up" -- and that's where we can help." Experts know that the problems can be solved – if everyone works together.

Moral Norms Responsibility

Hope for the Future

Agriculture metaphors

The U.S. has the most productive agricultural system in the world. "As global citizens, Americans have a responsibility to use our knowledge and expertise to find new solutions that strengthen the global food system, and improve the lives of people everywhere," says Adams. "You reap what you sow. With this project in Cameroon I like to think that we're planting seeds of hope."

Mutual benefits Adams says international cooperation is a two-way street. "I use my expertise to help make agriculture in Cameroon more profitable, and in the process I gain new skills and insights that help me do a better job at home. My first-hand experience with farmers in Cameroon has given me a deeper understanding of issues like marketing and food security -- issues that we all face. As a result, I can share that global perspective with my students at the College, as well as producer groups in Rural County. In today's economy where borders matter less and less, we have much to learn from each other."

Mutual benefits In the long run, Adams says that projects like the one in Cameroon can actually open new trade and business opportunities for American farmers. "Our biggest potential markets are in developing countries, but people there need higher personal incomes in order to participate in the global marketplace. Agricultural development programs are really a 'win-win' scenario."

Opportunity to learn more

Global community metaphor

Moral norms

The Hometown University web site has more information about the project in Cameroon and other international programs. Adams, who can be contacted through the web site, says he welcomes the opportunity to talk with individuals and groups about his experiences. "We're all citizens of the same planet," remarks Adams, "and we really need to work together to make the world a better place for our children and grandchildren."

B. SAMPLE ARTICLE OR SPEECH AN INTERNATIONAL ASSIGNMENT

Young Farmers in Asia and U.S. Learn Entrepreneurship Skills Together

An ocean connects the countries of Southeast Asia to the U.S. But we share more than oceans. The global environment means that we are connected in many important ways through our natural resources and food systems.

The Young Agriculturist Entrepreneurship Project will bring young farmers together for skills training, network building, and leadership development. Youth from Southeast Asia and the U.S. will participate in workshops, sharing their experiences and exploring the challenges of agriculture in a global economy. American youth will visit farms in Southeast Asia for a first-hand look at the global aspects of farming. Southeast Asian youth will have the opportunity to live and work alongside their counterparts during a month-long internship on U.S. farms.

According to Dr. Arlen Etling, Director of International Agricultural Programs at the University of Nebraska, the program is based on the premise that "there is one global food system and it will work best if we all work together. Some people think of other countries only as our competitors, but I like to think of them as our partners. Working together we can build that barn bigger and better than any of us can do alone."

This innovative project, co-sponsored by the U.S. Department of Agriculture, the Association of Southeast Asian Nations (ASEAN) and the University of Nebraska, will provide youth with the entrepreneurial skills they need to be successful in agriculture today. On a recent trip to Malaysia, Etling visited small farms in several remote areas of the country. He described a visit with Paik, a young farmer on the island of Borneo.

"After nearly three hours in the vehicle, most of it over bumpy dirt roads, we arrived at Paik's house. Paik is twenty-two years old and supports his wife, two small children, and his aging parents on his farm income. Paik has been experimenting with new curing techniques and preservation methods for duck eggs, a local delicacy. The small table in front of his bamboo house is laden with cured duck eggs to sell to passers-by. Paik's innovative nature caught the attention of the local Ministry of Agriculture. They thought he would be a great candidate for this training program because he is so highly motivated -- and, indeed he would be."

So far, Paik has been able to stay on his family farm. But the global economy presents new challenges to farmers everywhere, and we must all have the skills to meet those challenges. Young people in Southeast Asia, both men and women, learn traditional farming techniques from their parents, but lack the management and entrepreneurship skills necessary to operate successful commercial farming enterprises in today's world. As a result, there is a large out-migration from the rural areas and a great increase in

unskilled and unemployed laborers in the cities. "In order for a country's food and fiber system to remain strong and viable, there must be opportunities for bright young people to be successful in agriculture."

The situation in Nebraska and other farm states is not so different. Youth are not staying on the family farm and, seeing greater opportunity elsewhere, parents are not encouraging them to do so. According to the Nebraska Department of Agriculture, the number of farms operated by full-time farmers has dropped more than 21% from 1987 to 1997. If that rate continues, there may not be any family farms left in the state well within the lifetime of people who are teenagers today. "Young people don't see a future in agriculture, because they don't have the skills they need to make it profitable in today's global economy," says Etling. This is a trend Nebraskans want to stop in order to keep Nebraska agriculture economically healthy.

By having young American and Asian farmers work and learn side-by-side, this project will result in new approaches and creative solutions for making agriculture--in Asia and America--more profitable for young people. "Something magical often happens when people from different backgrounds work together," remarks Etling.

And, there are mutual benefits from global cooperation in agriculture. Development programs that help to raise incomes in other countries build future markets for U.S. products. Approximately one-fifth of all U.S. agricultural products are exported, but "poor people don't buy much," Etling notes. Investing in agricultural development and cooperation efforts has other benefits for Americans, too. International collaboration in agricultural research is essential to maintaining a safe, high-quality food supply for U.S. consumers. Research conducted overseas impacts crops grown in the U.S., as well as the many imported food items that consumers expect to see on their grocery shelves. "And, in the end," says Etling, "preserving our natural environment for future generations will require the cooperation of all countries around the world -- after all, we all call the same planet "home."

Etling is confident that the Young Farmer Entrepreneurship Project will make a positive difference in the lives of youth, both here and abroad. And he is looking forward to hosting a young farmer, like Paik, in his home next summer. "I'm sure it will be a great learning experience for both of us!" he says.

Asked why he thinks Nebraskans ought to be involved in projects like this, Etling remarked that "Americans are compassionate and generous people; we know that ending world hunger and poverty is the right thing to do. Moreover, it just makes good sense!"

C. SAMPLE ARTICLE OR SPEECH UNIVERSITY INVOLVEMENT IN INTERNATIONAL AGRICULTURE



International Agriculture: A Global Barn-Raising



It's time for a global barn-raising. Barn-raising, still practiced by some Amish and Old Order Mennonites in Pennsylvania, was once a common activity across rural America. When a family needed a barn, the entire community would show up to help, donating their time and skills. Together they would build an entire barn in a few days – an impossible task for a family working alone. That's the attitude and the work ethic we need today – to build a better world for all of us. It's time to work together with people from around the world to solve common problems, reap mutual benefits, and make the world a better place for future generations.

Why did our ancestors help build those barns? Because someone was in need and it was the right thing to do. But there is more to it than that. While barn-raisings helped one family at a time, everyone reaped the long-term benefits of a vibrant community and a strong support system. In today's world the mutual benefits of international cooperation in agriculture are even more dramatic. Global collaboration in agriculture -- our global barn-raising -- can help end world hunger and poverty. And who can argue with that as a priority? But the benefits to the U.S. are great too. Investing in agricultural worldwide can help expand trade opportunities, ensure safe food supplies, provide valuable scientific knowledge, preserve our precious natural resources, and promote cross-cultural understanding and awareness.

Specifically, here are some of the reasons why Penn State's College of Agricultural Sciences has chosen to join the global barn-raising:

Responsibility is Global. Despite economic prosperity and rising living standards in many parts of the world, 2 billion people suffer from malnutrition and food demand is projected to double by 2025, according to the International Food Policy Research Institute (IFPRI). Coupled with rapid population growth and urbanization in the world's poorest countries, the food and natural resource challenges of this century – challenges that many of us will face directly or indirectly during our lifetimes -- are immense. Just as there was a sense of community responsibility behind every barn-raising, the College has a moral responsibility to use its tremendous expertise and resources to help end hunger around the world, improve global living standards, and preserve our natural environment for future generations. It's the right thing to do!

Food Systems are Global. Preventative and curative investments in food commodities have impacts within and beyond our borders. Protecting U.S. agriculture from pests and diseases that may originate outside our boundaries keeps farm output up and sustains the flow of exports. Helping other countries improve their food quality makes food safer for

them while ensuring that American consumers will find a wide variety of high quality food on their supermarket shelves. Working together to build our "global barn" the College supports collaborative research and programs to make food products healthier, safer, and more abundant for all.

Science and Technology are Global. Agricultural issues of today transcend national boundaries and require global cooperation to find the best solutions, in everything from biotechnology and genetics to human resource development. Working internationally also gives our scientists access to state-of-the-art facilities, ideas, technologies and experiences. With government support for research declining around the world, it is important to collaborate to leverage increasingly scarce resources. Indeed, the number of internationally co-authored papers is increasing (17% in 1981; 29% in 1995), according to a study by the RAND Corporation. The College seeks to ensure that its faculty actively participates in collaborative research efforts at centers of excellence around the world. Building a good, sturdy barn depends on "know-how." The agricultural and environmental challenges of the 21st century require no less!

Economies are Global. Exports of Pennsylvania food, agricultural, and forestry related products are more than \$1.5 billion annually, according to the Pennsylvania Department of Agriculture. Countries who are major importers of Pennsylvania products include Canada, Brazil, Germany, Indonesia, Israel, Italy, Japan, Mexico, People's Republic of China, Philippines, Russia, Saudi Arabia, South Korea, Taiwan, and the United Kingdom. Agricultural development and cooperation programs strengthen economies and build strong bonds as a basis for future trade. Building a barn is about planning for and investing in the future. The College prepares its graduates to be players in the global marketplace, gives local business and community leaders the tools they need to operate effectively in the world, and invests in the agricultural development of countries who may become our future trading partners.

The Environment is Global. Agriculture cannot be separated from our precious natural resources base. Farmers everywhere know that water and soil quality, weather patterns, diseases, and pests are determined by factors well beyond the edges of their fields. What happens on one farm, indeed, can affect the farm down the road or farms halfway around the world. Good stewardship of forests and oceans everywhere safeguards the natural resource base for all. Techniques for sustainable resource management devised overseas can be equally beneficial when applied in the U.S. Environmental problems do not recognize national boundaries, and their solutions require good collaboration between private and public institutions, involving scientists and activists from many countries. The College is committed to being an active participant in global cooperation to preserve our interconnected world and local environments for generations to come.

Communities are Global. Pennsylvania, settled primarily by Germans and other Europeans in its early years, has a rich cultural heritage and a changing face. According to 2000 census data, Pennsylvania's Hispanic population has grown by 70% since 1990, and its Asian population has grown by 60%. Global is becoming local and effective education and outreach must be delivered within a culturally sensitive and globally aware

framework. The College seeks to ensure that its faculty, graduates and extension professionals have opportunities to experience other cultures and learn other languages, particularly those that have formed the Pennsylvania of today and are shaping the Pennsylvania of the future. And when it comes to barn-raising, everyone has something beneficial to contribute to the community.

There is no doubt that world of today is "smaller" than that of a generation ago. The interconnections -- agricultural, environmental, technological, political or cultural – are not going to go away. Indeed, these interconnections grow more intricate and complex by the day. Penn State's College of Agricultural Sciences has chosen to be at the forefront of globalization, providing leadership for students, faculty, and citizens to become more globally aware and positively involved in making the world a better place today and for future generations. They want to be a part of shaping the world community we all live in today, as they earlier helped shape the local communities of our proud agricultural heritage.

They'll be at the global barn-raising. How about you?

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All FrameWorks research is available for download at www.frameworksinstitute.org

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